Missouri's Air Quality

Two exceptions to good air quality in Missouri are the St. Louis area during the summer and one spot in east Missouri. The St. Louis area has repeatedly exceeded the ozone standard and is designated by the EPA as a moderate-level nonattainment area for ozone. This area includes the city of St. Louis and Franklin, Jefferson, St. Charles and St. Louis counties (see page 17), as well as Madison, Monroe and St. Clair counties in Illinois. A small area near a lead smelter in Jefferson County still exceeds federal standards for airborne lead (see page 22).

Air Quality Trends

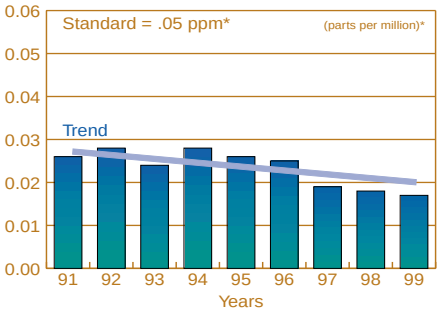
The department monitors air concentrations of the six criteria pollutants at selected locations throughout the state. Missouri is monitoring attainment of the air quality standards in most areas.

The graphs below are representative of general trends of ambient air data from four pollutants including CO, NO_2, SO_2 and PM_{10}. The overall trend as shown by the four graphs is improved air quality.

Air Quality Trends at Selected Locations

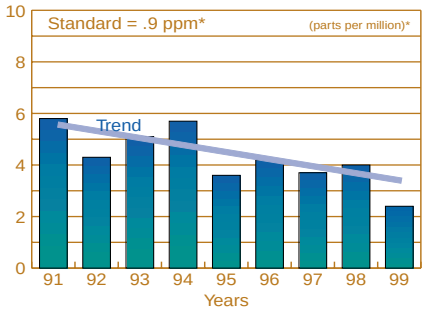
NITROGEN DIOXIDE ANNUAL MEAN, ppm

South Lindbergh, Affton 1991-99



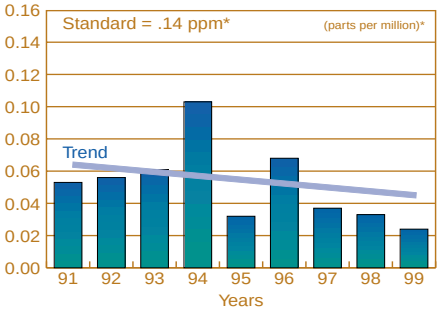
CARBON MONOXIDE 2nd 8-hr MAX, ppm

St. Charles Rock Road, St. Ann 1991-99



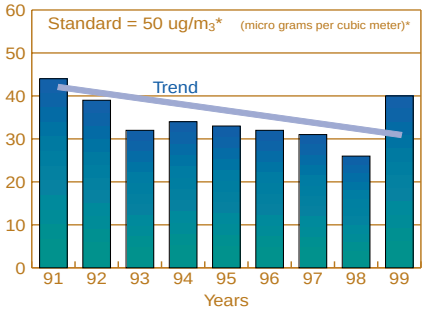
SULFUR DIOXIDE 2nd 24-hr MAX, ppm

South Charleston, Springfield 1991-99



PM10 ANNUAL MEAN, ppm

St. Joseph, Missouri 1991-99



Emission Trends

The graphs at right show the total emissions of the criteria and hazardous air pollutants (HAPs) that Missouri facilities reported for the years 1994 to 1998. As shown in Table 1, Missouri facilities continued to reduce emissions of certain pollutants into the air.

Facilities have generally reported decreased emissions of PM_{10}, SO_2, NO_2 and HAPs. The reduction in sulfur dioxide emissions was particularly significant, with a 51 percent decline since 1992. This may be due to the use of low-sulfur coal and conversion to cleaner-burning natural gas. New emission factors affecting the lead mining industry have resulted in a lead reduction of 44 percent. Industries have also reported a 12 percent decline in the emission of NO_2.

Since 1993, facilities have seen PM_{10} emissions reduced by 50 percent, while VOC emissions have dropped by 35 percent. Although the 1998 HAPs emissions being reported have increased by 48 percent from the previous year, this is primarily due to the fact that companies are now including HAPs in their responses to Emissions Inventory Questionnaires. Emissions of CO have remained about the same.

Records show an increase in the number of emission sources from approximately 1,800 in 1992 to more than 2,500 in 1998. Although economic development probably played a role, this is also partially a result of new standards affecting additional sources.

Annual Reported Emissions